CCI 644: Advanced Quantitative Methods
College of Communication and Information
The University of Tennessee

INSTRUCTOR: Elizabeth Johnson Avery, Ph.D.
OFFICE: 401-F, Student Services (enter through COM 476)
OFFICE HOURS: 2:00-4:00 Tuesdays, and by appointment
PHONE: 974-8157
EMAIL: ejavery@utk.edu
MEETING: Tuesday and Thursday, 9:40-10:55, Room 420

Catalog Description

Advanced theory and application of quantitative research methods to communication and information.

Prerequisites

CCI 631 or consent of instructor.

Course Description

This course extends the coursework and understanding of quantitative research methods from CCI 633 (or equivalent) by examining these methodologies in greater detail. Further, we will examine the entire research process – study design, data collection, data analysis, data reporting – and we will hone critical thinking in this area through critiques of existing research. We will review and extend multivariate data analysis in SPSS.

Course Goals and Objectives

Upon the completion of this course, students should be able to:

- expand understanding regarding the application of theory to a research question.
- critically evaluate communication and information research from a methodological standpoint.
- conceptualize and design your own research project.
- identify different research methods that may be used, including, but not limited to, survey research, experiments, and content analysis.
- identify, run, and report quantitative analyses in SPSS proficiently.
- understand measurement error and ways to overcome this problem.
OPEN RECORDS ACT

This course adheres to the University’s policy regarding the use and release of student records that are governed by Public Law 93-380, the Family Educational Rights and Privacy Act and the Tennessee Public Records Act, which charges the University and its employees with protecting the confidentiality of the educational records or its prospective, current, and former students.

Tolerance and Diversity

CCI recognizes and values diversity. Exposing students to diverse people, ideas, and cultures increases opportunities for intellectual inquiry, encourages critical thinking, and enhances communication and information competence. When all viewpoints are heard, thoughtfully considered, and respectfully responded to, everyone benefits. Diversity and fairness unite us with the wider professional and global community.

Students with Disabilities

Students with documented disabilities should notify the instructor immediately to discuss requests for special provisions. Students who have a disability that requires accommodation should make an appointment with the Office of Disability Services, 2227 Dunford Hall, (974-6087) to discuss specific needs and get official documentation of the disability.

Required Textbook


Required Readings

Readings for this class from the assigned textbook are noted on the attached schedule; they will be posted on Blackboard under Course Materials. There will be additional readings that are assigned as the course progresses.

Presentations

Each student will be responsible for one 30-45 minute presentation on a given methodological topic. In addition to the assigned reading, the presenter will introduce other information from outside research. As part of the assignment, each student will provide a reading on the topic to the class at least one week prior to their presentation. Pretend you are preparing and giving a mini lecture on the topic; it should extend what your classmates have learned in the required materials. These will be given on Tuesdays. I want YOU to choose the most important information to include, thus the lack of specificity, then engage, interest, and inform the class. The topics include:

Presentation #1  Levels of Measurement
Presentation #2  Validity Introduction and Assessment
Presentation #3  Response Effects
Presentation #4  Missing Data
Assignments of the Week

There will be 6 "assignments of the week" which will expand on the discussions from the prior week's class. Each student will write a 2 – 3 page paper on a research study, which either explains or utilizes the concept discussed in class. At the beginning of class, one student will be randomly selected to present and discuss their paper to the class. Please attach a copy of the published study to your paper.

Article Reviews

You will each complete a review of a scholarly journal article provided to you. Peer review is a critical part of the research process. The service effort is extensive but also a vital contribution to the field. The process of peer review is extremely important to your growth as a researcher, as you learn from the strengths and weaknesses of others’ work. I will give you an article to write a 5-6 page review of (double spaced). I want you to critique all sections of the article, with special attention on the methods section. Consult reviews you have received or perhaps others that colleagues are willing to share.

Research Mapping Assignment

Learning to “map out” my research ideas has been one of the most useful and worthy investments of my time as a researcher. I urge you to do this for your dissertations. First, write an abstract for your study (we will discuss this later). Then write out each hypothesis and RQ you will test and answer. Follow some standard format in your presentation of those to illustrate each variable and, within that H or RQ, the DV's and IVs. Next, list each variable, and put the question number/s from your survey instrument that you will use to measure that variable. If it is a validated measure, give the citation/s for how it has been used. Next include the instrument. For any questions that were not correlated to a variable, explain why that question is present or needed. Page numbers will vary dramatically; the content and including all of the above information is the important part.

Final Paper

The final paper/assignment in the class is a conference quality experimental or survey design paper. Further details on this paper and study will be discussed in class.

Assignments and Grading Weight

Due dates are listed on the syllabus.

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
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<tbody>
<tr>
<td>Participation</td>
<td>50 points</td>
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<tr>
<td>Assignment of the Week</td>
<td>90 points (15 x 6)</td>
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<tr>
<td>Peer Review Assignment</td>
<td>50 points</td>
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<tr>
<td>Presentations</td>
<td>60 points</td>
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<tr>
<td>Research Mapping Assignment</td>
<td>50 points</td>
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<tr>
<td>Final Paper</td>
<td>100 points</td>
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<td><strong>TOTAL</strong></td>
<td><strong>400 points</strong></td>
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The following grading scale will be observed in calculating final averages:
A  90% and Above
B+ 88-89.9%
B  83-87.9%
B- 80-82.9%
C+ 78-79.9%
C  73-77.9%
C- 70-72.9%
D+ 68-69.9%
D  63-67.9%
D- 60-62.9%
F  59.9% and Below

Course Policies

Attendance: Students are expected to attend classes regularly and promptly and are responsible for all work done in class if absent. Further, students should have read the assigned material prior to class and be prepared to participate. Attendance is mandatory for all student presentations. After two absences, 10 points will be deducted from the participation score for each further absence.

Late Assignments: Late assignments or exams are not accepted, except for in rare cases with PRIOR approval from the Instructor. For required, non-graded assignments, students who do not complete the assignment may have up to 5 points deducted from their final grade. Assignments are due at the beginning of the class.

Sources: Only published articles from peer-reviewed journals are considered to be acceptable sources. On line resources such as Wikipedia are not to be used as sources in your assignments.

Final Project Timeline

January:   Pick Topic.
           Work on Questionnaire.
February:  Submit IRB application by February 9.
           Work on experimental design.
March:     Mid March to early April: collect data.
April:     Write up the report.
# Course Schedule

Instructor reserves the right to adjust schedule as needed.

<table>
<thead>
<tr>
<th>January 14</th>
<th>Introduction to the Course</th>
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| January 19-21  | Theoretical Reasoning; Research Methodologies  
Planning Research; Reliability and Validity Considerations in Research Theory, Measurement and Sampling  
Social Measurement | Reading: Chapters 1 & 2  
Assignment of the Week #1 |

| January 26-28  | Levels of Measurement  
Presentation #1 | Reading: Chapters 4 & 5  
Assignment of the Week #1 |

| February 2-4   | Research Ethics  
External Validity  
Sampling  
Presentation #2  
Assignment of the Week #2 |

| February 9-11  | Survey Design  
Presentation #3 | Reading: Chapter 9 & 10  
Assignment of the Week #3  
Final Paper topic – DUE:  

| February 16-18 | Experimentation  
Presentation #4 | Chapter 7 & 8  
Assignment of the Week #4  
In lieu of the February 18 class, please plan on required attendance at CCI symposium; more later. |

| February 23-25 | Experimentation- Continued  
CCI RESEARCH SYMPOSIUM IS FEBRUARY 24.  
RESEARCH MAPPING ASSIGNMENT DUE 2/25 |

| March 13       | Content Analysis | Assignment of the Week #5 |


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<tr>
<th>March 8-10</th>
<th>Peer Review Process</th>
<th>Reading: Chapter 11 &amp; 13</th>
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<td></td>
<td>Observational &amp; Behavioral Coding</td>
<td>Assignment of the Week #6</td>
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<td>Mixed Methods</td>
<td>Peer Review Assignment</td>
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<td>March 15-17</td>
<td>SPRING BREAK</td>
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<td>March 22-24</td>
<td>Multivariate Analysis</td>
<td>Chapter 15 &amp; 16</td>
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<td>Error</td>
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<td>March 29-31</td>
<td>Data Analysis and Screening</td>
<td>Reading: TBA</td>
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<td>Frequencies, Descriptives, Chi-Square, T-Tests, Crosstabs</td>
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<td><strong>Peer Review Assignment Due 3/29</strong></td>
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<td>April 5-7</td>
<td>ANOVA/MANOVA</td>
<td>Reading: TBA</td>
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<td>April 12-14</td>
<td>Regression</td>
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<td>April 19-21</td>
<td>Factor Analysis</td>
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<td>April 26-28</td>
<td>Writing the Report</td>
<td>Chapter 17</td>
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**FINAL PRESENTATIONS**

Thursday, May 5, 2013 – 8:00-10:00 AM (subject to change)